

# LiDAR REPORT on the Wildwood Exploration Inc. Placer Prospecting Leases

Yukon Territory

Mascot Creek: Lease No.: IW00559

Owner: Wildwood Exploration Inc. 100% (IW00559)

NTS # 115J/09, 16

Latitude: 62.75896° N Longitude: 138.44949° W

Whitehorse Mining District

WORK PERFORMED: October 7, 2018 DATE OF REPORT: October 11, 2018 Author of Report: Isaac Fage



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### Summary

High Resolution LiDAR surveys were conducted on the Mascot Creek placer lease (IW00559). The lease is located 135km South of Dawson on Mascot Creek, which flows directly into the Yukon River (Figure 1).

The surveys were conducted by LiDAR Services International (LSI). of Dawson YT on October 7, 2018. The property was accessed by a Bell 206 helicopter based in Dawson, YT. Two lines (in and out) were flown on the creek using LSI's Matrix package, comprised of an ISA-100C Inertial Measurement Unit (IMU), a Riegl VQ-480i LiDAR unit scanning at 400kHz for 20 points per square metre across a swath ~320m across at a time, and a high-resolution digital camera taking aerial photography during the sweep.

The survey was successful in finding features such as previous flow channels, benches, and oxbows – all useful targets for future exploration work.

### **1.0 Location and Access**

The prospecting lease is located 152km SSE of Dawson City within the Yukon river drainage system in west-central Yukon Territory. It is centered at 62.75896° N, 138.44949° W, on NTS mapsheet 115J/09, 16 (Figure 1). It is accessible in winter on the Yukon river via snowmobile, and accessible by helicopter year round. Barges from Pelly Crossing, 100km east of the lease, pass by this location on their way to the Coffee project landing 40km to the west.

### 2.0 Property

Placer Prospecting lease Tenure: IW00559, 5 miles, Wildwood Exploration Inc. 100%, expiry Oct 12/18 (Figure 2)



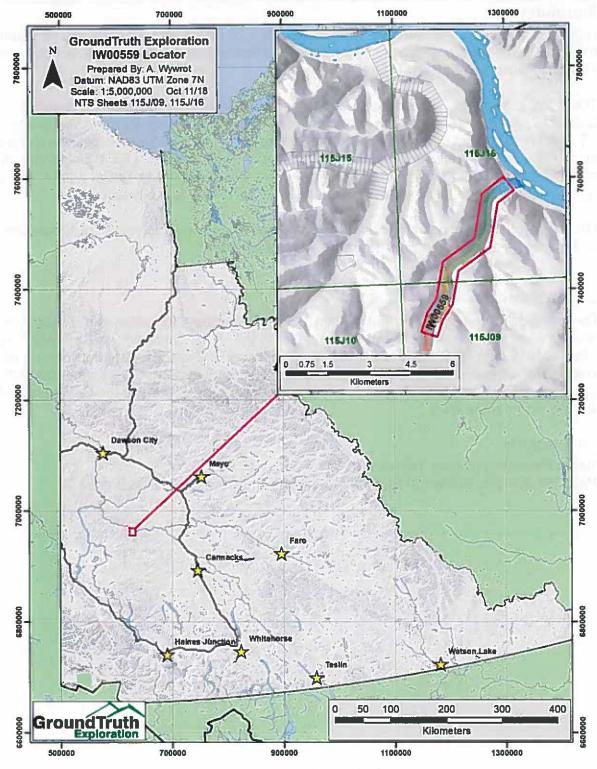


Figure 1: IW00559 Lease Location and NTS

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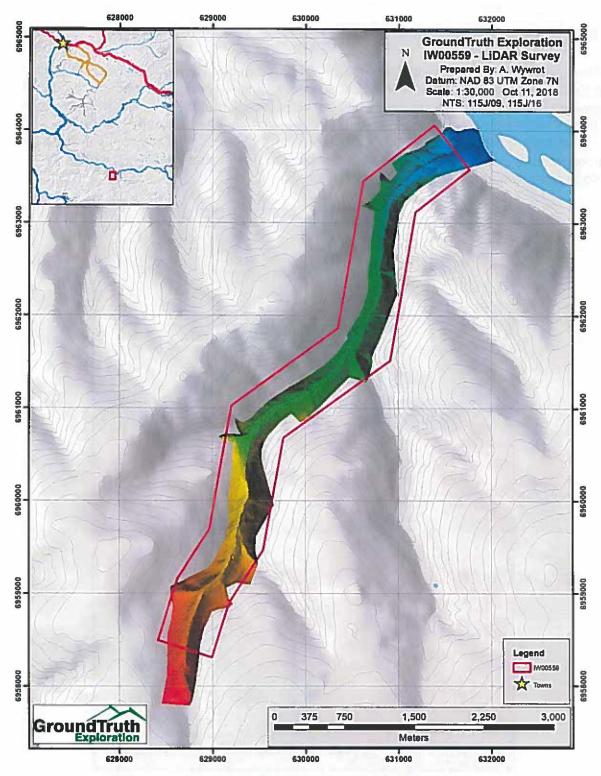


Figure 2: Further detail of lease and LiDAR Survey



## 3.0 Physiology and Geology

The Lease is underlain by the Whitehorse Plutonic Suite. Regionally, it is coded as mKdW, a granitic unit of the mid-cretaceous era consisting of grey, medium to coarse grained, generally equigranular granitic rocks of locally mafic composition (hornblende diorite, biotitehornblende quartz diorite and mesocratic, often strongly magnetic, hypersthene-hornblende diorite, quartz diorite and gabbro). Nearby units include the Prospector Mountain suite to the south, related to the Casino porphyry, and the Snowcap metamorphics to the north. (figure 3)

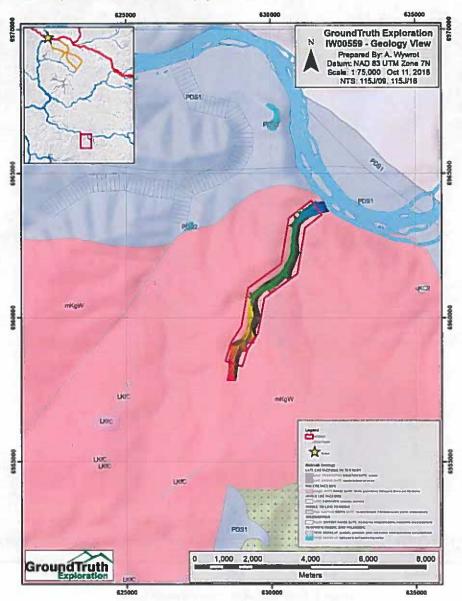


Figure 3: Bedrock Geology of Mascot Creek



## 4.0 Airborne LiDAR Survey

Lidar Services International (LSI) of Calgary, Alberta conducted the airborne LiDAR survey on the Mascot Creek lease IW00559 for Wildwood Exploration on Oct 7/18. The LiDAR unit was mounted on Transnorth Helicopter's Bell 206 helicopter, registry TNY. The helicopter was flown from Dawson to Casino Airstrip, where an active GPS station was set up, before flying to the creek to complete the aerial survey.

The survey was completed using LSI's Matrix sensor package, comprised of an ISA-100C Inertial Measurement Unit (IMU), a Riegl VQ-480i LiDAR unit scanning at 400kHz for 20 points per square metre across a swath ~320m across at a time, and a highresolution digital camera taking photographs of the area as it flew. The instrument is placed on the side of the helicopter and taking up the main cargo bay in the helicopter, while processing computers, monitors, and in-flight GPS equipment is placed at various points throughout the aircraft (see figures for details)

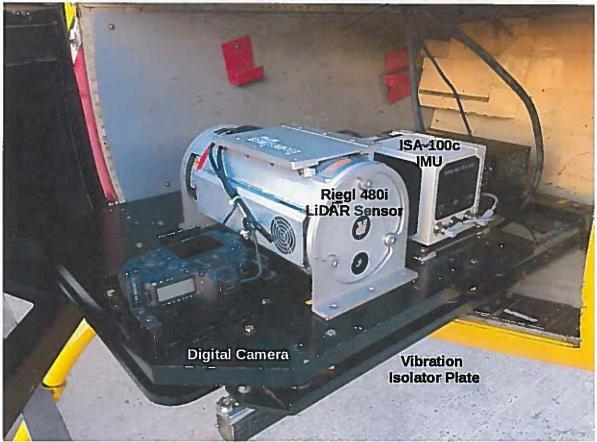


Figure 4: LiDAR Unit Assembled in Helicopter





Figure 5: GPS Unit on Helicopter Tail



Figure 6: Helicopter Ready to Fly

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### LiDAR Survey Operating Procedures:

- A crew of 2 (Pilot and LiDAR Operator) fly out in the helicopter
- An RTK GPS base station is deployed near the survey area at a resupply point
- Helicopter flies to survey area
- LiDAR Operator designates flight lines to Pilot to fly as sensor collects data
- LiDAR Operator monitors incoming data, ensures collection quality
- LiDAR Operator directs pilot to refly areas as necessary
- Helicopter lands, data is exported off the computers
- LiDAR Processing staff run classification programs on incoming data
- Intermediate data products produced for review
- Data is manually checked over to ensure accuracy
- · Final data products produced, certified for accuracy, and delivered to client

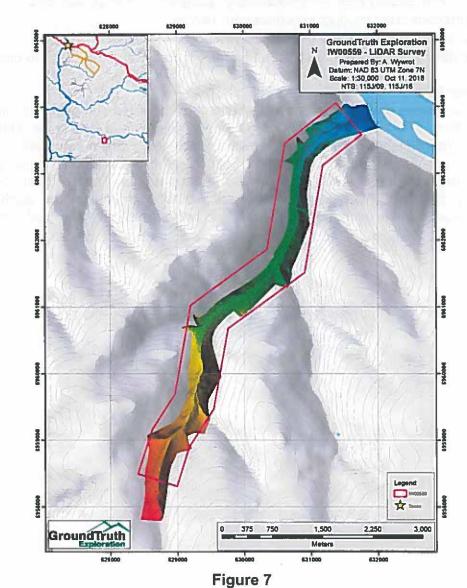
### Data Processing:

The collected data is downloaded from the helicopter-mounted computers to processing units in the form of LAS 1.2 Point Clouds. The processing staff use Bentley Microstation CAD and Terrasolid LiDAR processing software, creating scripts to automatically classify the points as ground, vegetation, error, etc. Following the automated process, the same software is used for manual editing of any erroneous points. The GPS station data is integrated to ensure the LiDAR represents an accurate surface on the earth. Finally, requested data products such as topo models and orthophotos are delivered to the client.



## 5.0 Survey Results - Mascot LiDAR Survey

The results of the survey are currently in processing, and are not expected to be released for six weeks after survey. Intermediate data products have been provided, but the following figures may change due to editing of the point cloud by LSI as they create final products.



#### **Survey Results:**

The LiDAR survey was successfully completed in full, evaluating the entirety of the creek valley.

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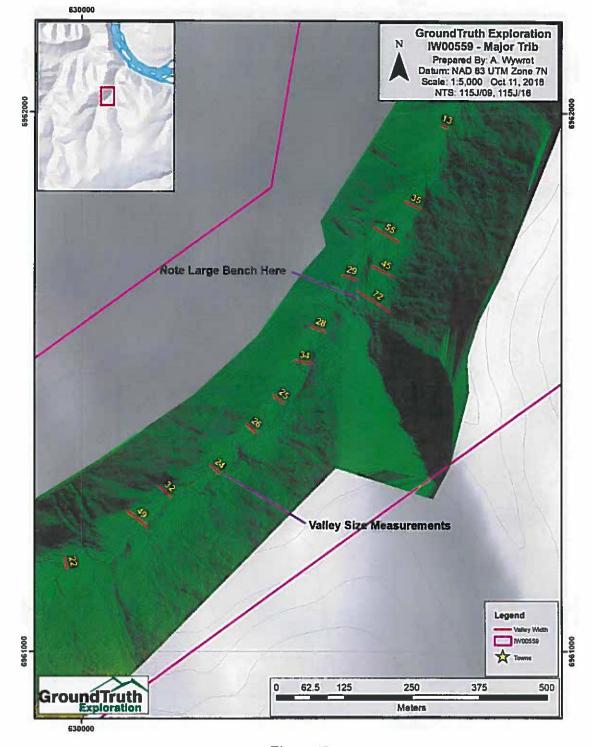


Figure 8 The LiDAR allows for analysis of benches and channels as tributaries merge into the creek



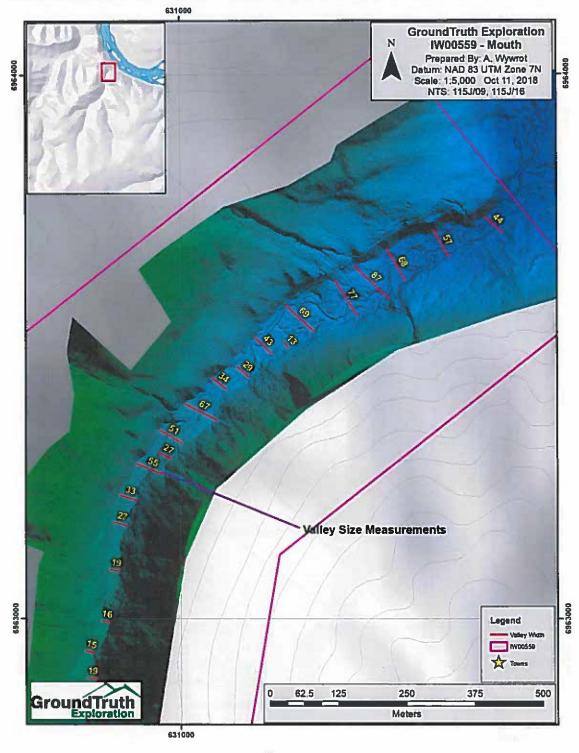


Figure 9 A view of the creek mouth, examining the change in width of the valley floor

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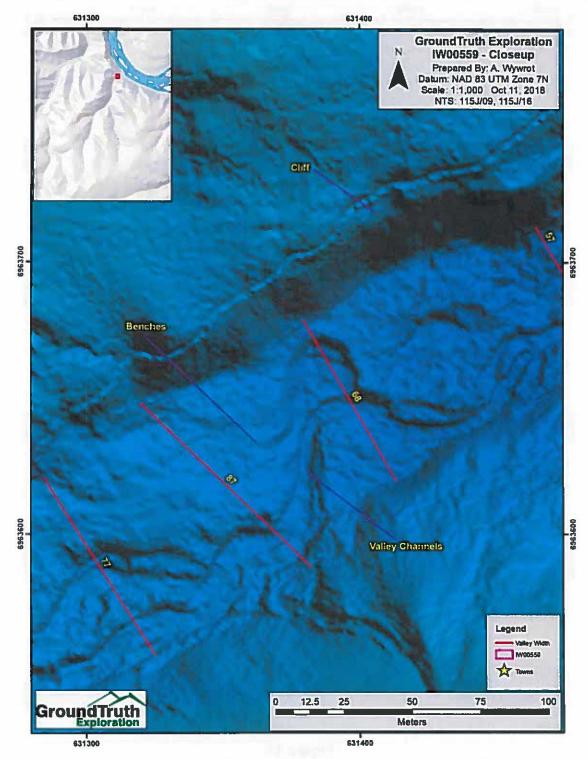
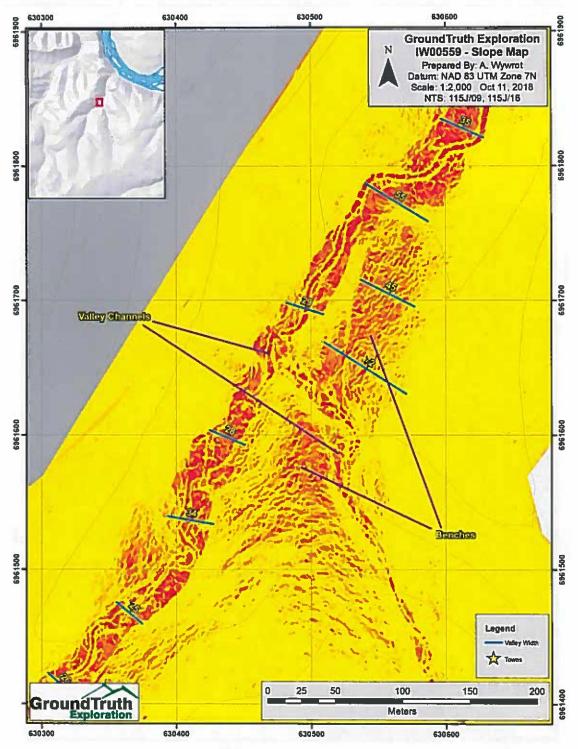


Figure 10

An extreme closeup of the valley mouth reveals views of cliffs, overlapping stream channels, oxbow lakes, and benches – all useful features to examine for placer gold





## Figure 11

An example of another product – a slope map. Red represents areas less than 15 degrees in slope – this helps highlight valley floor and bench features near a tributary

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## 6.0 Conclusion/ Recommendations

The LiDAR Surveying on placer lease IW00559 produced an extremely high resolution 'bare earth' detailed topography model, and will create excellent supplementary products such as orthophotos and surficial models once processing is complete. These products will be very useful in identifying benches, stream channels, and other valley features. Knowing the location of these features will aid the planning of geophysical surveys, drilling locations, and eventually placer mining operations.

## 7.0 Statement of Expenditures

**Contractor:** GroundTruth Exploration Inc. **Placer Lease Surveyed:** IW00559

IW00559 -		1166 - B.		
Airborne LIDAR Survey				
Survey Date: Oct 7/18				
Overview: Alrborne LIDAR survey over whole length of five-mile lease				
Chargeout Rate of \$500/linear km all inclusive	км	Rate	Total	
	8	\$500	\$4,000	
	Hours	Rate	Total	
Interpretation and Reporting at \$80/h	16	\$75	\$1,200	
		Total Expenditures	ér 200	
		on Lease:	\$5,200	

## 8.0 Statement of Qualifications

I, Isaac Fage of Dawson, Yukon Territory certify that I hold an Advanced Diploma in GIS/Remote Sensing from the Centre of Geographic Sciences (COGS). I am Operations Manager and President of GroundTruth Exploration Inc. I have been working in the mineral exploration industry continuously since 2004.

Isaac Fage Oct 11, 2018

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